

Title (en)
ELECTROCONDUCTIVE LAMINATE, AND ELECTROMAGNETIC WAVE SHIELDING FILM AND PROTECTIVE PLATE FOR PLASMA DISPLAY

Title (de)
ELEKTROLEITFÄHIGES LAMINAT UND ABSCHIRMFILM FÜR ELEKTROMAGNETISCHE WELLEN UND SCHUTZPLATTE FÜR EIN PLASMA-DISPLAY

Title (fr)
STRATIFIE ELECTROCONDUCTEUR, ET FILM DE PROTECTION A ONDE ELECTROMAGNETIQUE ET PLAQUE DE PROTECTION POUR AFFICHAGE PLASMA

Publication
EP 1819210 A4 20090701 (EN)

Application
EP 05805412 A 20051031

Priority
• JP 2005020042 W 20051031
• JP 2004345877 A 20041130
• JP 2005254907 A 20050902

Abstract (en)
[origin: EP1819210A1] To provide an electroconductive laminate having a broad transmission/reflection band and having excellent electrical conductivity (electromagnetic wave shielding properties), visible light transparency and near infrared shielding properties, and an electromagnetic wave shielding film for a plasma display and a protective plate for a plasma display. An electroconductive laminate 10 comprising a substrate 11 and an electroconductive film 12 formed on the substrate 11, wherein the electroconductive film 12 has a multilayer structure having an oxide layer 12a and a metal layer 12b alternately laminated from the substrate 11 side in a total layer number of (2n+1) (wherein n is an integer of at least 1), the oxide layer 12a contains zinc oxide and a high refractive index metal oxide having a refractive index of at least 2.3 as the main components, and the metal layer 12b contains silver or a silver alloy as the main component; and a protective plate for a plasma display comprising a support, an electroconductive laminate 10 provided on the support, and an electrode electrically in contact with an electroconductive film of the electroconductive laminate 10.

IPC 8 full level
H05K 9/00 (2006.01); **B32B 9/04** (2006.01); **B32B 15/04** (2006.01); **G02B 1/10** (2015.01); **G02B 1/11** (2015.01); **G09F 9/00** (2006.01)

CPC (source: EP KR US)
B32B 15/04 (2013.01 - KR); **G02B 1/10** (2013.01 - KR); **G02B 1/11** (2013.01 - KR); **G09F 9/00** (2013.01 - KR); **H05K 9/0096** (2013.01 - EP US); **H01J 2211/446** (2013.01 - EP US)

Citation (search report)
• [XY] JP 2000059082 A 20000225 - NIPPON SHEET GLASS CO LTD
• [Y] JP H11119666 A 19990430 - BRIDGESTONE CORP & EP 1398812 A2 20040317 - BRIDGESTONE CORP [JP]
• [XY] JP 2002006106 A 20020109 - NITTO DENKO CORP
• [XY] JP H11307987 A 19991105 - NIPPON SHEET GLASS CO LTD & US 6316110 B1 20011113 - ANZAKI TOSHIKI [JP], et al
• [XY] JP 2000294980 A 20001020 - NIPPON SHEET GLASS CO LTD & EP 1043606 A1 20001011 - NIPPON SHEET GLASS CO LTD [JP]
• [XY] JP 2003157018 A 20030530 - ASahi GLASS CO LTD
• [XY] JP 2003058064 A 20030228 - ASahi GLASS CO LTD & EP 1280179 A2 20030129 - ASahi GLASS CO LTD [JP]
• [XY] JP 2004304373 A 20041028 - MITSUI CHEMICALS INC
• [XY] JP 2003318594 A 20031107 - MITSUI CHEMICALS INC
• [XY] JP 2003313651 A 20031106 - MITSUI CHEMICALS INC
• See references of WO 2006059448A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1819210 A1 20070815; EP 1819210 A4 20090701; EP 1819210 B1 20120111; AT E541439 T1 20120115; CA 2588815 A1 20060608; CN 101945564 A 20110112; JP 2006186309 A 20060713; KR 101270784 B1 20130604; KR 20070084168 A 20070824; TW 200633634 A 20060916; US 2007224432 A1 20070927; US 8040062 B2 20111018; WO 2006059448 A1 20060608

DOCDB simple family (application)
EP 05805412 A 20051031; AT 05805412 T 20051031; CA 2588815 A 20051031; CN 201010293454 A 20051031; JP 2005020042 W 20051031; JP 2005254907 A 20050902; KR 20077010669 A 20051031; TW 94139466 A 20051110; US 75555507 A 20070530